

Monitoring Data RecordProject Title: R-2206B (NC 16 Bypass) COE Action ID: 200431320Stream Name: UT to Forney Creek (Site 10B) WQC Number: 3476City, County and other Location Information: Lincoln County, NC 16 Bypass

(Sta. 159+00 LT.-L-)

Date Construction Completed: 3-3-08 Monitoring Year: (4) of 5Ecoregion: _____ 8 digit HUC unit 03050101

USGS Quad Name and Coordinates: _____

Rosgen Classification: C5Length of Project: 463' Urban or Rural: Rural Watershed Size: _____Monitoring DATA collected by: M. Green Date: 6/16/11

Applicant Information:

Name: NCDOT – Roadside Environmental UnitAddress: 1425 Rock Quarry Rd, Raleigh, NC 27610Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov

Consultant Information:

Name: _____

Address: _____

Telephone Number: _____ Email address: _____

Project Status: _____**Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.):** Level 1

Permit States: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will be conducted during Years 1, 3, and 5. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES*(Monitoring at all levels must complete this section)***Total number of reference photo locations at this site:** 10 photos were taken from 5 photo point locations looking up and down stream.**Dates reference photos have been taken at this site:** 3/3/08, 9/3/08, 3/6/09, 8/10/09, 2/8/10, 9/29/10, 2/9/11, 6/16/11**Individual from whom additional photos can be obtained (name, address, phone):** _____

Other Information relative to site photo reference: A site map with photo point locations is included with this report.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL

Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:_____

ADDITIONAL COMMENTS: Streambank reforestation consisted of black willow and silky dogwood live stakes planted along the streambank. The floodplain was planted with overcup oak, sycamore, green ash, and river birch bareroot seedlings. Planted vegetation is surviving Other vegetation noted included fennel, *Juncus* sp., goldenrod, tag alder, lespedeza, red maple, sweetgum, bald cypress, silverthorn, *Scirpus* sp., briars, and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

UT to Forney Creek is stable for the Year 4 Summer evaluation, except for the two areas noted below in the chart. The last crossvane and the right bank looking downstream were re-worked in 2010 per DWQ's comments from October 2009. This area @ Sta. 159+40 -L- has continued to have some instability since this work was complete. A site visit was conducted on June 16, 2011 with the regulatory agencies and NCDOT personnel present. It was determined at that meeting that the area at Sta. 159+40 -L- needs to be repaired. NEU staff is currently coordinating with division personnel to repair this area. NCDOT will continue to monitor this stream restoration project.

Date 6/16/11	Sta. 160+00-L- (additional photo)	Sta. 159+40-L- (photo point #5 downstream)	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?	Water piping under crossvane	Water piping under crossvane			
Head cut or down cut present?	Headcut				
Bank or scour erosion present?		Erosion behind left arm of last crossvane			
Other problems noted?					

Section 4. DEBIT LEDGER

The entire UT Forney Creek stream mitigation site was upfront stream mitigation. This site will be used, with regulatory approval, to offset future impacts in the Catawba river basin.

UT Forney Creek



Photo Point #1 (Upstream)



Photo Point #1 (Downstream)



Photo Point #2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)



Photo Point #3 (Downstream)

UT Forney Creek



Photo Point #4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)



Headcut at Sta. 160+00 downstream of Cross Section #6
Year 4 Summer – June 2011



Overview photo of site

UT Forney Creek
R-2206B
Lincoln County

